



**IRREGULAR WARFARE
TECHNOLOGIES DIVISION
SYSTEM INTEGRATION
LABORATORY DEVELOPMENT &
MANAGEMENT PLAN
FOR
GLOBAL DISCOVERY DEA**

(b)(3)

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PART I – SIL INTRODUCTION

1.0 SCOPE

This document identifies the development and management plan for a System/Software Integration Laboratory (SIL) for the Global Discovery (GD) Program. It will include descriptions of laboratory scheduling, security, location, uses, and procedures for SIL utilization.

1.1 PURPOSE

The purpose of this SIL is to provide an environment for development, integration, training, and testing of the various subsystems of GD. The SIL will enable the integration and testing of each subsystem individually and collectively.

1.2 REFERENCES

- a) NSWCCrane Instruction 2250.1D, Instructions for the Handling and Control of Communications Security Material Systems Material
- b) NSWCCrane Instruction 2250.2B Emergency Action Plan for the Handling of COMSEC Material
- c) DoD INSTRUCTION 8523.0, Communications Security (COMSEC)
- d) NSWCCrane Instruction 5298.7, Information Assurance (IA)
- e) NSWCCraneINST 5510.1A, Information, Personnel, and Industrial Security Manual
- f) GD-JXTN-K-016.23 Asset Material Management Plan for Global Discovery DEA (b)(3)
- g) GD-JXTN-J-036.04 Software Development Plan for Global Discovery DEA (b)(3)
- h) GD-JXTN-J-036.12 Data Processing Software Test Plan for Global Discovery DEA (b)(3)
- i) GD-JXTN-K-015 Rev A Security Classification Guide (SCG) for Global Discovery DEA (b)(3)
- j) NSWCCraneINST 5100.15 Hazard Analysis for Hazardous Operations and Operational Risk Management
- k) NSWCCraneINST 5100.1, Occupational Safety and Health Program
- l) SPAWAR INST 5100.9D, Navy Shore Electronics Safety Precautions
- m) NSWCCraneINST 4855.10A, Electrostatic Discharge (ESD) Control Program

1.3 LOCATION

The SIL is located at Naval Surface Warfare Center (NSWC) Crane Building 41, Lab 14 and in the Mobile Test Facility (MTF), adjacent to Building 41.

PART II – DEVELOPMENT, IMPLEMENTATION, AND MAINTENANCE PROCEDURES

2.0 EQUIPMENT RESOURCES

- Equipment inventory shall be maintained by the Equipment Custodian in accordance with (IAW) the Asset Material Management Plan (AMMP).
- Chain of Custody shall be maintained by the Equipment Custodian for all equipment that has been identified and serialized for the GD project by the logistics team.
- The Equipment Custodian shall be notified of any equipment discrepancies to initiate maintenance action IAW AMMP.

2.1 SCHEDULING

- Project scheduling of the SIL will be coordinated with Joey Allen, (Lab 14 Manager).
- The SIL will be available on an “as needed” basis for the development, integration and testing of the GD system and individual subsystems throughout the duration of the GD project. Scheduled milestones will receive the highest priority during this period for the lab usage. Concurrent development and testing will be coordinated between the appropriate Integrated Project Teams (IPTs).

2.2 HARDWARE INTEGRATION

- The SIL will support hardware, integration, and testing as hardware is made available. The SIL will be capable of partial system integration and full ground based system integration.
- Equipment required to support this effort will be supplied by the GD project and installation will be coordinated through the lab manager.
- Facilities requirements, such as power and cooling, test benches, temporary equipment racks, test equipment and handtools will be provided by the Lab manager.

2.3 SOFTWARE DEVELOPMENT

- The SIL will support software development, integration, and testing as hardware is made available.
- Equipment required to support software development will be supplied by the GD project and implementation will be coordinated through the software IPT.

2.4 SYSTEMS INTEGRATION TESTING

- The development, integration, and testing concept provides for the utilization of the GD SIL environment, which co-exists with the software development laboratory. Planning for integration tests shall consider resources, test dependencies, and integrated schedules; and identify required test procedures to fulfill the plan.

- The GD system shall utilize the SIL to verify subsystem components, subsystem interfaces, partially integrated system functionality, and fully integrated system functionality.

2.5 TRAINING ACTIVITIES

- TBD as required to support operator/test or operability of the integrated system.

2.6 SECURITY PROCEDURES

- Security procedures will be adhered to as outlined in References (e) and (i).

2.7 ACCESS PROCEDURES

- Access procedures will be IAW, applicable Department of Defense (DoD) and NSW Crane policies. Access request will be determined by NSW Crane, JXS Branch, and request provided to the SIL Facility Security Officer (FSO). Access will be granted, as necessary, to perform duties associated with development, integration, and testing of equipment/systems related to the GD project.

2.8 COMSEC PROCEDURES

- COMSEC procedures will be adhered to IAW References (a), (b), (c) and (g) during all phases of development, integration and testing when equipment requiring COMSEC is being used in the SIL.

2.9 MAINTENANCE PROCEDURES

- Maintenance will be performed and recorded by qualified personnel as required by Reference (f).
- Depot Level Maintenance, if required, will be scheduled IAW Reference (f) and coordinated by the appropriate system IPT through the Logistics IPT IAW Reference (f). Spares will be utilized to maintain system integrity, if available, until units requiring maintenance/repair are returned to service.

3.0 SAFETY POLICY

- General Safety will be adhered to IAW Reference (k), and any local instructions as promulgated by the SIL Manager.

3.1 ELECTROMAGNETIC INTERFERENCE (EMI) HAZARD POLICY

- EMI Safety Safety will be adhered to IAW References (k) and (l), and any local instructions as promulgated by the SIL Manager.

3.2 ELECTROSTATIC DISCHARGE (ESD) PRECAUTIONS POLICY

- ESD precautions will be adhered to IAW References (l) and (m), along with any local instructions promulgated by the SIL manager.

3.3 RADIATED FREQUENCY INTERFERENCE (RFI) HAZARD POLICY

- RFI precautions will be adhered to IAW Reference (I), along with any local instructions promulgated by the SIL manager.

4.0 ACRONYMS

| | |
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| AMMP | Asset Material Management Plan |
| C3 | Command, Control & Communications |
| COMSEC | Communications Security |
| DCGS | Distributed Common Ground System |
| DIB | DCGS Integration Backbone |
| DoD | Department of Defense |
| EMI | Electromagnetic Interference |
| EO | Electro Optical |
| ESD | Electrostatic Discharge |
| FSO | Facility Security Officer |
| GD | Global Discovery |
| IA | Information Assurance |
| IAW | In Accordance With |
| IPT | Integrated Project Team |
| IR | Infrared |
| MTF | Mobile Test Facility |
| NSWC | Naval Surface Warfare Center |
| RFI | Radiated Frequency Interference |
| SIL | Software/System Integration Laboratory |
| TBD | To Be Determined |

5.0 POINTS OF CONTACT

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